Attachment # 1

Development Engine Status
as of 1 Feb. 1962

Engine No.	Location	Operation	Program	Configuration	Build Target	Remarks
FX-111	Assembly	Rebuild	Temperature Profile	Diffuser O.D. trip, extended I.D.; burner cans relocated between diffuser struts.	2/15	Evaluate long range production fixes.
FX-112	Assembly	Rebuild	Endurance and Temperature Profile (Replacing FX-1)	Diffuser O.D. trip, extended I.D., strut trip (from FX-1); New burner cans matched to this diffuser.	2/19	Evaluate durability using quick fix diffuser with new matched burner cans.
FX-113	C-4 Stand	Hot Section Inspection	Performance and Temperature Profile	Diffuser O.D. trip, extended I.D., strut trip; New burner cans matched to diffuser (like FX-112)	—	Evaluate performance using quick fix diffuser with new matched burner cans. To follow FX-115 into C-5 altitude stand.
FX-114	Assembly	Rebuild	Endurance	Diffuser O.D. trip, extended I.D., strut trip; New burner cans matched to diffuser (like FX-112, 113). Bolted compressor rotor. Latest available controls.	2/23	Evaluate durability using quick fix diffuser with new matched burner can; bolted compressor rotor, latest controls.
FX-115	C-5 Stand	On Test	Compressor Durability	Older diffuser without extended I.D. or strut trips;older burner cans. (Similar to latest configuration cited on 1-4-62). Bolted compressor rotor. Integrated control system using non-production hardware.	—	Evaluate bleed bypass effects on temperature profile, bolted rotor durability under surge, CSC stability.
FX-116 (P-3)	A-5 Stand	On Test	Ejector then Hartford test stand shakedown	Not a J-20 development engine.	—	Ejector test in process.

Engine No.	Location	Operation	Program	Configuration	Build Target	Remarks
FT-113	A-1 Stand	On Test	Controls Development	Old diffuser and burner cans. Bobtail control system.	---	Replaces ID-2, check out Bobtail control system.
ID-1	Returned To Assembly from A-3 Stand	Rebuild	Compressor Structural Evaluation and Endurance	To incorporate heavy turbine vibration dampers as a result of ID-2 experience. (All other engines now have heavy dampers). Also to have bolted compressor rotor. Diffuser configuration not established.	Not Yet Established	Just returned to assembly for heavy dampers. Next program to run strain gage on bolted rotor to evaluate stress levels.
ID-2	Returned To Assembly from A-1 Stand	Rebuild	Controls Development	To rebuild turbine with heavy vibration dampers. Also to have bolted compressor rotor. Diffuser configuration not established.	Not Yet Established	Turbine blade failure at 96 hours believed due obsolete light weight dampers.
ID-3	A-2 Stand	On Test	Initial Delivery Engine - Green Run	Older diffuser/burner can configuration similar to FT-113. (Revised diffuser and burner cans not yet established together with bolted rotor to be incorporated after green run). Bobtail control system.	---	Green run with Bobtail control system.